

Abstract of the Disclosure

An apparatus and method for extracting object based on feature matching between segmented regions in images are provided. The apparatus includes an image input unit for receiving a query image including an object and an object extraction target image from which the object included in the query image is to be extracted; an object position determination unit for determining a position of the object in the object extraction target image using pixel based color feature matching; an image segmentation unit for segmenting each of the query image and the object extraction target image into a plurality of regions using image features including color or texture; and an object region determination unit for performing matching between the segmented regions in the query image and the segmented regions in the determined position of the object in the object extraction target image using color or texture features and determining a final object region using similarity in spatial adjacency between matching regions obtained as a result of the matching. Accordingly, an image region of a particular object can be automatically extracted from an object extraction target image. Therefore, the apparatus can be applied to video editors, video authoring tool, object based video encoder, interactive video authoring tool, and the like.